

(19)



Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number:

0 325 399
A3

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 89300383.0

(51) Int. Cl.⁵: G11B 23/00

(22) Date of filing: 17.01.89

(30) Priority: 19.01.88 JP 4883/88

(43) Date of publication of application:
26.07.89 Bulletin 89/30(84) Designated Contracting States:
AT BE CH DE ES FR GB GR IT LI LU NL SE(88) Date of deferred publication of the search report:
27.12.90 Bulletin 90/52

(71) Applicant: MITSUI PETROCHEMICAL
INDUSTRIES, LTD.
2-5, Kasumigaseki 3-chome Chiyoda-ku
Tokyo 100(JP)

(72) Inventor: Omae, Fujio c/o Mitsui
Petrochemical Ind. Ltd.
2-5, Kasumigaseki 3-chome
Chiyoda-ku Tokyo(JP)

(74) Representative: Myerscough, Phillip Boyd et al
J.A.Kemp & Co. 14, South Square Gray's Inn
London, WC1R 5EU(GB)

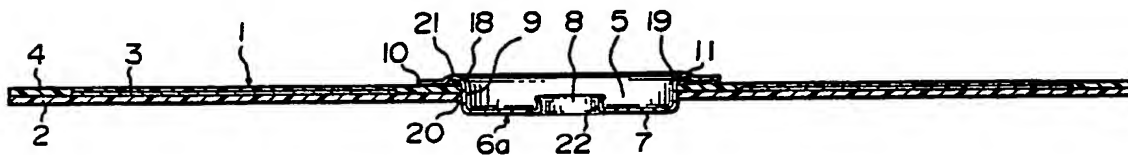
(94) Information recording media.

(57) An information recording medium (1) comprising a disc substrate (2) having at least laminated thereon a recording layer (3) and a central hole (5), and a magnetic clamping hub (6a) fitted into said central hole (5), said magnetic clamping hub (6a) having a spindle hole (8) at the center of a base portion (7) thereof, a cylindrical first upstand portion (9) rising

from the outer periphery of the base portion (7), an upper flange portion (10) extending from the outer periphery of the upper end of the first upstand portion (9) and attached to an inner peripheral surface of the disc substrate (2) at the junction of the upstand portion (9) and the upper flange portion (10).

FIG.1

EP 0 325 399 A3





European Patent
Office

EUROPEAN SEARCH REPORT

Application Number

EP 89 30 0383

DOCUMENTS CONSIDERED TO BE RELEVANT			CLASSIFICATION OF THE APPLICATION (Int. Cl.4)
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	
A	PATENT ABSTRACTS OF JAPAN vol. 11, no. 331 (P-630)(2778) 29 October 1987, & JP-A-62 114180 (SONY CORP.) 25 May 1987, * the whole document *	1, 2, 4	
A	US-A-4562505 (EDWARD MROZ) * claim 1; figures 1-5 *	1, 2	
A	GB-A-2161977 (TDK CORPORATION) * page 2, lines 31 - 44; figure 1 *	1, 2	
A	GB-A-2082372 (SONY CORPORATION) * page 9, lines 45 - 50; figure 7 *	1, 2	
The present search report has been drawn up for all claims			TECHNICAL FIELDS SEARCHED (Int. Cl.4)
			G11B
Place of search BERLIN		Date of completion of the search 09 OCTOBER 1990	Examiner GERARD E.A.S.
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application I : document cited for other reasons & : member of the same patent family, corresponding document			